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TENT-SPEAKING FOR HEALTH

*An Experiment in Chautauqua Health Education*

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**H**OW to reach those leaders in each community to whom we must look for the development and support of public health programs is a problem that all public health educators must face and solve. In the belief that Chautauqua provides one of the best media for reaching the highest concentration of intelligence in the small town, the American Public Health Association, the National Tuberculosis Association, twenty-three state health departments, five chautauqua circuits and the Milbank Memorial Fund have cooperated in the organization of a chautauqua health program. The venture, organized in the summer of 1928, is so new that as yet it is in the experimental stage,

but already 375 communities in twenty-three states have been reached and the estimated audiences of the public health lectures incorporated into the chautauqua programs number 820,000. The establishment of two full-time county health units in Tennessee, one in Lincoln County, and the other in Giles County, was an outstanding immediate achievement of the program.

In addition there were many other tangible results. Health officers expressed their delight with the results of the lectures, which in many instances cleared away objections and obstacles which had been confronting them. In one populous county a full-time county health unit with a good record had been voted out of existence by the local fathers. This action was reversed shortly after the chautauqua health lecture. In a small city plans have gone forward for a public water supply and better sewage disposal system. One doctor reported no less than a dozen calls for typhoid or diphtheria inoculation on days following the lecture. A health department employe reported that the lecture had resulted in the

DURING the past two summers, the Milbank Memorial Fund has cooperated with the American Public Health Association and the Redpath and Swarthmore Chautauqua Systems in utilizing professional public speakers to interpret the public health movement to audiences in 372 towns and cities distributed over twenty-three states east of the Mississippi River. Homer N. Calver, executive secretary of the health association, here writes about this experiment. Hereafter the *Quarterly Bulletin* will be utilized from time to time for the presentation of articles concerning the various interests of the Fund beyond the horizons of the three New York Health Demonstrations.

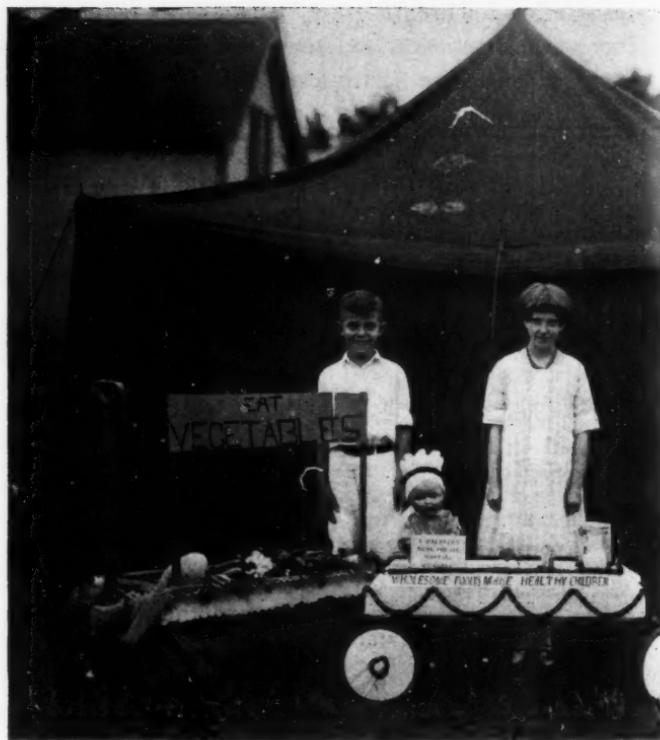
hushing of complaints against strict health requirements. School authorities expressed their gratification at the importance given in the health lectures to problems of school hygiene, and local business men joined in approving the project.

IN 1927, the Syracuse Department of Health directed a survey to ascertain certain facts about persons then residing in Syracuse who at some time had been diagnosed tuberculous. With the co-operation of public and private agencies and institutions and of private physicians, the records of the Department of Health, and of such other likely sources as clinics, hospitals, schools, and a preventorium were searched. A digest of the findings of this study appears as the second article in this issue. (On page 99 is an index to the titles of articles and the names of persons appearing in Volume VII. The *Bulletin* was established in 1923, this being the twenty-seventh issue published.

One health officer reported that the chautauqua health lecture had created sufficient interest in a proposed local ordinance governing milk distribution by dairymen to enable this ordinance to be passed and put into effect quickly. Another health commissioner declared that the health lecture had crystallized local support of health measures and at the same time had brought him

to the realization of the importance of keeping his community informed concerning local health activities. "We are so busy trying to keep these movements going that we forget how to keep the results before the public," he wrote, "and a lecture like this gives us enthusiasm and courage to continue. I think this is a wonderful work."

The chautauqua health program, financed by the Milbank Memorial Fund, was operated under the general direction of a committee of the American Public Health Association, under the chairmanship of Dr. S. J. Crumbine. It was planned



so that the chautauqua health lecture in each town and county would be no ordinary vague discussion on hygiene but that it should be inspired and inspirational general public health information and education, plus a very intimate and accurate presentation of local health problems.

There were four lecturers the first season, but, according to a change of policy, only one, Mr. Frederick M. Snyder, was engaged for 1929. The lecturers were chosen with great care, particularly with respect to their gifts as public speakers. They were each supplied with a condensed public health



library in order to familiarize themselves with the general facts, and in addition they were given particular information gathered for the occasion about each community.

It was to a man behind the scenes that the chautauqua health program was indebted for the local color that made these health lectures as popular and as successful as they were. An experienced health officer, employed by the American Public

Health Association, acting as an advance scout, visited state and local health officials; - - preceded the chautauqua into the towns on its route, and visited the local health officer, if any, and unearthed the status of public health in that county and town. These nuggets of local health history were transmitted in memoranda to the speaker in advance of his address. An advance agent was responsible too for some of the health publicity that whetted the interest of townspeople in the personality and powers of the health speakers.

When the health speaker came to the chautauqua plat-

form, he was faced by an audience that was already interested in hearing what he had to say about their town, and in learning how much he knew about it. They were never disappointed, for his knowledge seemed almost omniscient.

He knew when he was in a county that had no county health department, and he knew whether the reason was inertia or politics. He knew when a devoted health officer was struggling against great odds with inadequate appropriations. He knew where the health department was operating without either a nurse, a laboratory, or a technician. He knew that in one wealthy county the only public health nurse had been dismissed when her car wore out because no money would be appropriated to provide her with a new car. He knew when he was in a town where there were no sewers, where the little stream that flowed through the town had been turned into a gutter for human filth because estimates on the costs of sanitary sewers had been filed away in the town archives and forgotten for four years.

He knew when there was no milk inspection, no typhoid immunization, no school physical examinations, no diphtheria protection. He knew where there had been twenty cases of smallpox in one county within two years, and he knew that the reason was because the "courthouse gang" wouldn't support enforcement of vaccination. He knew about a recent local typhoid fever epidemic that had resulted in twenty-one cases and one death, and he knew, likewise, the old spring of polluted water to which this epidemic had been traced. He knew, too, that just the day before he arrived in one town the entire populace had been saddened by the death of a little girl whose death could have been prevented had there been public health efforts at immunization. He was even familiar with such dark details of local history as the fact that the largest office building in the town had no toilet.

The lecturer knew where to praise as well as where to condemn, and his position in each town was that of the prophet, coming from the outside, daring to ignore local politics and personal desires for gain that kept the town and county inactive in the face of antiquated laws and lax administration. After the lecture he answered questions and made appointments with local men of influence in order to follow up the interest that his words had inspired.

In commenting on the value of the chautauqua health program in the State of Tennessee, Dr. E. L. Bishop, State Commissioner of Health, expressed the opinion that the work done in Tennessee alone will yield dividends over a period of years to come that will be far in excess of the actual amount of money spent in all of the states reached by the lectures.

"Briefly summarizing," Dr. Bishop writes, "we feel that Mr. Snyder's visit to the state was largely instrumental in bringing about the establishment immediately of two county health departments and the quite probable establishment of two additional departments and the possible establishment of still another county health department. Mr. Snyder worked in direct and intimate association with this department, saying, much more effectively than could we, exactly the things we would have said. No amount of money similarly spent, we think, could have resulted in more definite, specific and constructive improvements."

Members of the community who acted as guarantors of the chautauqua program as a whole indicated their enthusiasm at the new departure in including such a lecture on public health in the week's program. "A lecture like that makes Chautauqua worthwhile," one of the guarantors stated. "When the Chautauqua brings such fine and helpful lecturers, we will continue to buy season tickets."

Editorial comment was universally favorable. "Nothing

better illustrates the value of the Chautauqua to a community," the *Columbus (Georgia) Ledger* wrote of the lecture.

The *Fayetteville (North Carolina) Observer* stated, "We recall one outstanding address on public health which, for its value and influence to the community, was probably worth the entire cost of the season's ticket. Today Fayetteville is thinking more in terms of public health than at any time heretofore because a man who had the facts at his command made it plain that the fight against disease is the bitterest battle that man has ever waged."

In chautauqua towns the school children were organized into a miniature municipality by a Junior Town director with the assistance of local teachers. This miniature municipality represented the children's own home town and they dealt with its actual problems. Special attention was paid to personal and public health, hygiene and sanitation. The Junior Town director guided these town meetings, often assisted by the county nurse. At the end of the week the juniors put on a health education program.



## DIGEST OF A SURVEY OF KNOWN CASES OF TUBERCULOSIS IN SYRACUSE DURING 1927



DURING the calendar year of 1927 the Bureau of Tuberculosis of the Syracuse Department of Health planned and directed a survey the objective of which was to locate, as far as possible, every person in Syracuse who had ever been diagnosed tuberculous and to ascertain certain facts about such persons. This study, made by Miss Agnes Leisy, was financed by the Milbank Memorial Fund.

The survey was carried out along the general plan outlined by the National Tuberculosis Association, with modifications to meet local conditions. With the cooperation of public and private agencies and institutions and private physicians, records of the Department of Health, clinics, hospitals, schools, a preventorium and other likely sources were searched. Field work and correspondence were undertaken in a follow-up of thirty-four hundred cases, and the results of 1,764 cases were tabulated in this study. The remainder were excluded for various reasons, such as death prior to 1927, departure from Syracuse prior to 1927, duplicates, and cases could not be located.

In 1927 there were 1,727 residents and 37 non-residents on the tuberculosis register, including active, arrested, cured cases, and status unknown. On December 31 of that year, as a result of removal from the City, or death, there were 1,512 such residents and 23 non-residents. While the 23 non-residents remaining in Syracuse at the end of 1927 constitute a part of the tuberculosis problem of the City, for this study they were relatively unimportant, and were excluded from the tabulation and discussion.

Of all of the known cases among Syracuse residents, 1,349,

or approximately 78 per cent were of the respiratory system; 1,216 being of the respiratory system alone, and 133 complicated by other forms of tuberculosis. Given preference according to the International List in cases of combinations, the 378 cases of other forms follow tuberculosis of the respiratory system in order of frequency as shown in Table 1.

The classification of tuberculosis cases by status, as shown in Table 2, is based on the statements of physicians. In general, all cases which had not a recent report

from a physician on their activity were classified as status unknown. Upon investigation it was found that the majority of persons whose status was unknown at the end of 1927 were well and working at that time and had not found it necessary to consult a doctor recently.

Table 1. Classification by type of the tuberculosis cases on the register in Syracuse, 1927.  
(Includes active, arrested and cured cases.)

Type	No. of Cases
<b>TOTAL</b>	<b>1,727</b>
Respiratory system	1,349
Lymphatic system	187
Joints	54
Genito-urinary system	34
Spine	34
Intestines and peritoneum	29
Bones	17
Meninges or central nervous system	11
Skin	2
Organs other than the above	10

Table 2. Cases of tuberculosis on the register in Syracuse according to status as of December 31, 1927.

TYPE	STATUS OF CASE			
	ACTIVE	ARRESTED	CURED	STATUS UNKNOWN
<b>TOTAL</b>	395	380	381	356
Pulmonary	328	317	175	277
Other respiratory	25	19	7	13
Non-respiratory	42	44	199	66

STAGE	STATUS OF CASE			
	ACTIVE	ARRESTED	CURED	STATUS UNKNOWN
TOTAL	328	317	175	277
Minimal	74	154	123	102
Moderately Advanced	120	117	29	74
Far Advanced	127	25	3	13
Stage Unknown	7	21	20	88

Table 3. Cases of pulmonary tuberculosis on the register in Syracuse classified according to stage and status of the case as of December 31, 1927.

For cases of pulmonary tuberculosis, the last stage reported in the various status groups is shown in Table 3.

There is evidence of the comparative ease with which the minimal case becomes arrested or cured and the resistance which the moderately or far advanced case offers to becoming arrested. The active group had relatively the fewest cases in the minimal stage, and fewer moderately advanced than far advanced. In the arrested and cured groups the reverse is true.

The average age of the 1,727 persons included in this survey is thirty-four years. More significant than the average age is the fact that one-fourth of the cases are under 21 years of age, one-half under 31, and three-fourths under 41. A study of age and sex together reveals that the influence of sex does not operate equally at all ages. The differences in the age distribution of the cases for each sex are apparent as shown in Fig. I. The variations in the rates are minor up to the age of 25 when the rate for males rises considerably above that for females and continues consistently higher than the female rate during the rest of life.

Comparing the mortality rates from tuberculosis for each sex at different ages, as shown in Fig. 2, the most striking difference occurs in middle life. Beginning with the age group

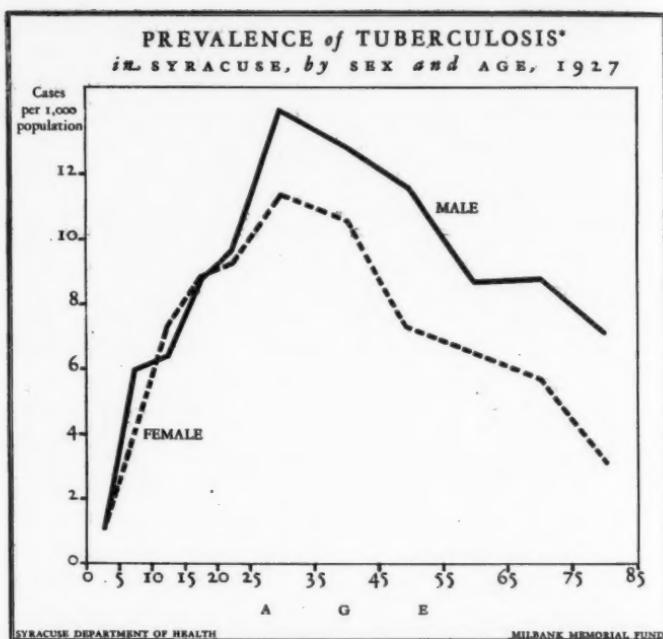


Fig. 1. Cases of tuberculosis, all forms, per 1,000 population, by sex and age in Syracuse, 1927.

\*The chart is based on all persons known to have or to have had tuberculosis; i.e., active, arrested and cured cases on register in Syracuse in 1927.

25-34 years, the male rate increases and the female decreases, producing great disparity between the rates from 45 to 65 years of age.

More than half of the 1,727 persons included in the survey were married. Of the 395 persons known to have active tuberculosis, 195 were single; 169, married; 23, widowed; 5 separated; and for 3 marital condition was not specified. No relationship between marital condition and status of the disease is apparent.

A consideration of the question of residence indicates how

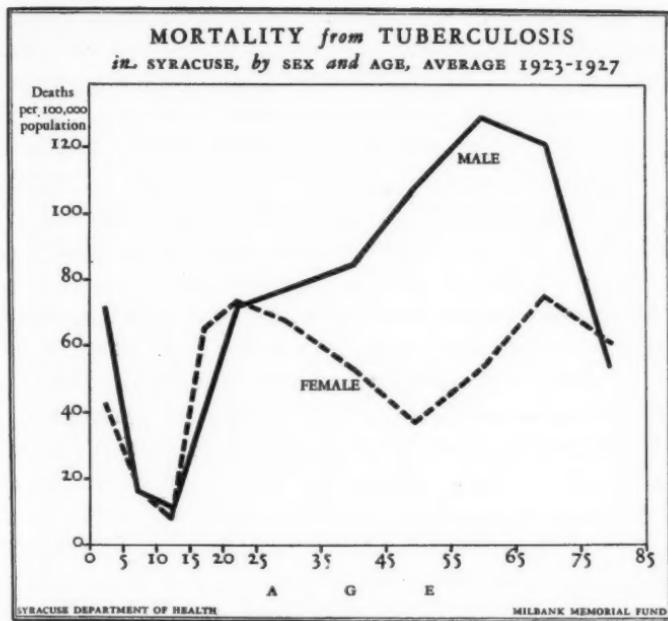


Fig. 2. Deaths from tuberculosis, all forms, per 100,000 population, by sex and age, in Syracuse, average for 1923-1927.

little the tuberculosis problem in Syracuse is influenced by conditions outside the City. As previously noted, only 37 of the 1,764 persons included in the survey had lived in Syracuse less than one year and thereby are considered non-residents. Excluding non-residents, 693 were born in Syracuse and lived there always; 47 were born in Syracuse and lived there 84 per cent of their total lives; 940 were born elsewhere and spent 46 per cent of their total lives there; 47 were born elsewhere and length of residence in Syracuse is unknown.

During the survey year 145 residents of the City having a history of tuberculosis died. The average length of time elapsing between the appearance of the first symptoms of

the tuberculous disease as reported and the death of the individual concerned was 4.53 years. Twenty-seven per cent of the cases has a duration under 1 year; 42 per cent, under 2 years; 56 per cent, under 3 years; and 65 per cent, under 4 years. While the actual duration of disease can be computed only for those in whom it has been terminated in death, the average length of life after onset for those remaining in Syracuse at the end of the year, as shown in Table 4, has some significance.

Syracuse is reported as the place in which the tuberculous disease had its beginning in 1,521 cases, the onset was elsewhere in 184 cases and not reported in 22 cases. The first diagnosis was made by a private physician in 1,041 cases; by a clinic physician in 371 cases; by a physician with a general hospital in 90 cases; a Veterans' Bureau physician in 43 cases; a sanatorium physician in 40 cases; by a physician with a state institution in 31 cases; by the County Hospital physician in 13 cases; by all other physicians in 31 cases; and for 67

Table 4. Average duration of life for all tuberculosis cases on the register in Syracuse, December 31, 1927.

Sex, Form and Status	Average Duration of Life
ALL CASES	7.2
Males	7.1
Females	7.0
Respiratory	7.0
Other forms	6.8
Active	5.6
Arrested	7.5
Cured	8.3
Status Unknown	9.1
Dead	4.5

cases the name or status of the physician making first diagnosis was not known.

In a study of case reporting in twelve medium-sized American cities, The National Tuberculosis Association found that in 1925, 16 per cent of the deaths were reported as cases a year or more prior to death. The comparable percentages in Syracuse for the past five years are: 1923, 26.7; 1924, 20.2; 1925, 33.1; 1926, 26.7; 1927, 36.1. These per-

centages are based on deaths of Syracusans at Onondaga and Ray Brook sanatoria, as well as on all tuberculosis deaths occurring in Syracuse. Of the 1,727 cases among residents, 1,212 or 70 per cent were reported to the Department of Health prior to the end of 1927. Of the 1,212 cases reported, 55 per cent were reported within a month after diagnosis; 75 per cent were reported in less than six months; and 81 per cent in less than a year after diagnosis.

Institutional treatment for tuberculous persons in Syracuse is furnished largely by the Onondaga Sanatorium, where 130 or 135 beds are available for Syracuse patients, and by the New York State Hospital for Incipient Tuberculosis, at Ray Brook, New York, and the general hospitals of Syracuse. Of the 1,727 residents included in this survey, 74 per cent had had sanatorium or hospital treatment for tuberculosis, 445 had had no such treatment, and for 40 information was lacking. Of the cases of tuberculosis of the respiratory system, 70 per cent reported sanatorium or hospital care. The length of time of treatment extended from one month to fifteen years. The average for tuberculosis of all forms was 12.0 months. At the end of 1927 there were 27 tuberculous persons in Syracuse awaiting admission to the Onondaga Sanatorium.

During 1927, nine weekly clinics were conducted by the Bureau of Tuberculosis of the Department of Health. The Onondaga Sanatorium conducts clinics every two weeks. The number of patients' visits to the Department of Health chest clinics for 1927 was 3,957. Clinic experience for tuberculosis was reported by 708 residents; 934 reported no clinic experience and for 85 information was unknown.

Of the 1,727 residents included in this study, 587 reported one or more relatives with a history of tuberculosis; 1,029 reported no known tuberculous relative; for 111 information

was lacking. Forty-one per cent of the cases of respiratory tuberculosis had other cases of tuberculosis among relatives, and 20 per cent of the non-respiratory cases.

One of the most effective measures of tuberculosis control is the examination and close observation of contacts. A total of 5,071 persons, including 1,801 under 16 years, were living in the households of the 1,727 residents included in the survey. A medical examination at some time was reported for 48 per cent of the child and 40 per cent of the adult contacts of tuberculous cases. Medical examinations at some time were reported for 50 per cent of the child and 43 per cent of the adult contacts of cases of respiratory tuberculosis. Unfortunately the information does not include the date of examination, nor does it refer to a definite period of time.

Of the 1,727 residents included in this survey, 145 died during the year. At the close of the year 663 were gainfully employed, 325 were housewives, 236 were in school, 309 were unemployed, 14 were under 5 years of age, and for 35 information was unknown. Of those gainfully employed 77 were active cases, 175 were arrested, and 186 cured. The status of the remainder was unknown.

Of the 145 deaths in 1927 among residents diagnosed tuberculous, 125 were charged to tuberculosis and 20 to some other cause. Of the deaths from tuberculosis 107 occurred in Syracuse or at the Onondaga Sanatorium and 18 elsewhere. The official number of deaths from tuberculosis in Syracuse for 1927 is 115. Based on an estimated population of 196,645, these 115 deaths give a death rate (corrected for residents at Onondaga Sanatorium) of 59 per 100,000. For the 125 tuberculous residents who died from the disease, the deaths were charged to the following forms: 107 to tuberculosis of the respiratory system; 11 to tuberculous meningitis; 3 to tuberculosis of the intestines or peritoneum; 4 to other forms.

# NEWS DIGEST

*of the* NEW YORK HEALTH DEMONSTRATIONS

THE first two of a series of monographs on specific phases of the work of the Cattaraugus County Health Demonstration, "Improving the Dietary Habits of a Rural Community" and "School Health Work in Cattaraugus County," will shortly be ready for distribution, and either one or both will be sent free, upon request, to any reader of the Quarterly Bulletin. These monographs make no attempt to appraise the accomplishments of the demonstration or of any of its services. Their purpose is rather to make available to rural counties in New York and elsewhere a record of the techniques employed in setting up and administering, on a county-wide basis in a rural community with a widely scattered population, programs in nutrition and in school hygiene.

"Improving the Dietary Habits of a Rural Community" is by Miss Ruby M. Odell, who was, for the first two of the

three years covered by the story, the nutrition supervisor employed on a temporary basis by the local County Board of Health to teach the fundamental principles of nutrition to its staff members and other community workers in order that they might in turn teach others. When the nutritionist undertook the work in Cattaraugus County a study of the records of physical examinations made in the diagnostic clinics conducted by the County Board of Health in various parts of the County showed that a large number of adults and preschool children were suffering from physical disorders apparently due to poor food habits. The findings of the physical examinations of Cattaraugus school children, showing that 10 per cent of the city and 25 per cent of the rural school children were 10 per cent or more underweight, also indicated the need for the services of a nutritionist.

As an approach to discover the causes of the dietary ailments from which these individuals were suffering the record shows how the nutritionist, with the assistance of leaders of the thirty local groups of Home Bureau women, members of the home economics classes of the high schools and of the public health nursing staff, selected and made a study of the dietary habits of 100 representative Cattaraugus County families, containing a total of 479 persons. Starting with these survey findings an educational program in nutrition was subsequently developed, the dietary faults revealed determining for the nutritionist the chief points of emphasis. The program undertook three principal types of activities—service to individuals suffering from dietary ailments, a program of adult education, and a school health program. The methods used in administering this program are described in detail and show that a number of unique features were employed, among which was the self-teaching plan adopted by the local Home Bureau groups. Services to individuals and to groups of underweight school children were limited, the great-

er part of the nutritionist's time being systematically apportioned, ten days monthly with the school teachers, eight days with the nurses, and four days with the Home Bureau, teaching particularly the dietary needs of the school child.

The record, though making no attempt to draw conclusions about the effectiveness of the nutrition program, does give a few concrete figures on activities that can be measured quantitatively, and these figures, together with the findings of a re-survey of the families whose dietary habits were studied in the original survey to determine what changes had been effected in their food practices, present some idea of the work accomplished from April, 1924, to January, 1928, when in accordance with the original plan, responsibility for the nutrition program was transferred to the public health nursing service and to the teachers, special activities promoted by the nutritionist being merged with other general health activities of the County Board of Health.

**A**n account of the experience during its formative years of the first county-wide school health program in rural New

York is contained in "School Health Work in Cattaraugus County" by Dr. C. A. Greenleaf, director of the Cattaraugus County School Health Service. This story has special significance when it is remembered that the school health service established in Cattaraugus County in 1923 on a voluntary basis was, the year following, reorganized as the State's first official supervisory school hygiene district under the provisions of the permissive law passed that year (New York State Law, Chapter 194, Section 577-b).

The record reviews the detailed steps by which there was devised and set up, at a cost which it is believed the community can afford to maintain permanently, a county-wide school health program adequate to meet the needs of a rural county with an annual school population of approximately 17,948 children unevenly scattered over a wide area of 1,343 square miles in 299 schools of varying size and equipment, 232 of which are one-room district schools so typical of rural sections throughout the country. The story tells how those responsible for establishing the school

health service coped with the perplexing problem of providing adequate personnel and transportation facilities in a county where the distances between schools are great and where many of the country roads, poor enough in summer, are almost impassable in the winter; and how an administrative organization was effected to meet the varied health needs of the 299 city, village and rural schools without dealing separately with the 269 independent local school districts.

To discover and secure correction of the physical defects of the children and to conserve and promote individual health, the school health program provided medical and nursing service, limited service in dental hygiene and nutrition, special services from time to time, and a program of health instruction. The methods by which these services were staffed and the way in which they functioned under the supervision of a part-time medical director and a full-time county school nurse is adequately told in the record.

Through a county-wide physical examination survey, the technique of which is de-

scribed, 10,000 defects, serious enough in the examiners' opinions to warrant immediate attention, were found among the rural school children outside of the cities of Olean and Salamanca. In the twenty-two city schools where medical inspectors and nurses had been employed before the advent of the County school hygiene service, the children were on the whole found to be in better physical condition than were those in the rural schools. This discovery released the energy of the school health administrators for intensive work in the rural districts, where, during the two school years included in the study, their efforts were devoted to securing corrections of the physical defects discovered through the survey. To this end, the three principal follow-up methods used were: (a) correspondence with the parents of children having physical defects; (b) general publicity urging medical attention for school children in need of it; and (c) nursing service in the homes and schools.

The record contains a summary of the work accomplished which shows that excellent progress has been made in carrying out the principal features

of the initial school health program. Accomplishments that lend themselves to measurement are recorded, but no attempt is made to draw conclusions as to the ultimate benefits that the children of Cattaraugus County will derive from the work. The story is of a school health program still in the process of development.

**U**NDER the title, "An Attempt to Eradicate Bovine Tuberculosis from Cattaraugus County," an article by Dr. Veranus A. Moore, dean of the New York State Veterinary College of Cornell University and a member of the Advisory Committee on Bovine Tuberculosis of the Milbank Memorial Fund, appeared in the June issue of *Veterinary Medicine*. The article contains an historical account of the measures developed to eradicate bovine tuberculosis from the County's 80,000 dairy cattle, distributed in 4,205 herds, and shows how the Cattaraugus County Farm and Home Bureau Association, in cooperation with the local County Board of Supervisors secured the cooperation of the Federal Bureau of Animal Industry, the New York State

Department of Farms and Markets, and the Milbank Memorial Fund in the work, to the end that a safe milk supply might be insured to the people of Cattaraugus County.

As a result of the campaign to eliminate tuberculosis from Cattaraugus County cattle, 11,451 infected animals have been removed from the herds of the County and infection has been reduced from 10.3 to 0.99 of 1 per cent. Dr. Moore states that although the progress of testing the cattle in the County has been beset with many difficulties, the whole-hearted cooperation of the practicing veterinarians, the Tuberculosis Committee of the Board of Supervisors and the County agent, with the Federal and State authorities, has enabled cattle owners to have their herds tested and the reactors removed to a greater extent and within a shorter time

than in most other counties in New York State. Dr. Moore anticipates that practically all, if not all, of the infected herds will test clean this spring and fall. In this connection, it is interesting to note that Mr. C. N. Abbey, the present Cattaraugus County agent, has pointed out in a recent report that the elimination of bovine tuberculosis has been of much economic value to the County as it has increased the market value of the cattle from ten to twenty-five dollars each.

At the request of the Cattaraugus County health officer, Dr. R. M. Atwater, the Advisory Committee on Bovine Tuberculosis of the Milbank Memorial Fund visited the County recently to consider with the local authorities a number of questions that have been raised in the County regarding further steps toward the protection of the local milk supply.







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